

EFFECTS OF SOYBEAN PROCESSING INDUSTRIES ON MARKETING EFFICIENCY OF SOYBEAN TRADERS IN BENUE STATE, NIGERIA

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ABSTRACT

The study focused on assessing the effects of soybean processing industries on marketing efficiency of soybean traders in Benue State, Nigeria. A multi-stage random sampling technique was used in selecting respondents for the study. A total of 239 soybean traders from six local markets and two soybean processing industries were selected. Data were collected with the use of a well structured questionnaire; the collected data were analyzed using both descriptive statistics such as frequency, percentages, and mean while inferential statistics such as marketing efficiency index, and quantile regression was also used. The result revealed that the mean age of soybean traders was 43 years, while soybean marketing is predominantly carried out by males (81.2%) and married people (81.6%). Furthermore, result revealed majority (89.5%) were fully engaged in the business as their major source of income was derived from soybean marketing, with average years of experience being 11 years. The average household size was 7, with majority (88.7%) of the traders generating less than N500,000 annually from soybean marketing. Also result indicated soybean traders selling to the processing industries were more (758.09%) efficient than those selling in the local markets (479.06%). The study further established that processing industries exert a positive and significant effect (ranging from 223.638 to 276.503 depending on the quantile) on marketing efficiency of soybean traders. Further, education (15.549), years of experience (11.126), household size (15.018), annual income (0.0002) and market information (350.100) had a significant effect on marketing efficiency. The study recommends increased awareness targeted especially at large households, high income generating households, traders with some level of formal education to encourage soybean processing industrial market participation as its prospects for higher marketing efficiency is glaring. Also barriers of entry into local markets existing in the study area should be removed to encourage and attract more participation in the markets.

KEYWORDS: Effects, Soybean Processing Industries, Marketing, Quantile Regression & Marketing Efficiency

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INTRODUCTION

Soybean crop is one of the most important crops worldwide. Soybean seeds are important for both protein meal and vegetable oil. According to Hartman *et al.* (2011) soybean is grown on an estimated 6% of the world's arable land, and since the 1970s, the area in soybean production has the highest percentage increase compared to any other major crop. Recent increases in production coincide with increases in demand for meal and oil. Furthermore, compared to other crops, soybean is the third most heavily traded crop with almost 75million metric tons in 2007. As demand continues to rise, soybean production area and soybean trades are likely to increase more rapidly than most other major crops (Hartman, *et al.*, 2011).

Today, most of the world's soybeans are processed or crushed into soybean meal and oil (Ali, 2010). In India, soybean contributes 40% and 25% to the total oil seeds and edible oil production of the country,

respectively and earns valuable foreign exchange by exporting soymeal. Current crushing capacity of soybean processing industry is about 20 million tons per annum with the total production of 12.0 million tons soybean oil. As far as consumption pattern is concerned, 100% of soybean oil produced in India is consumed domestically (Agarwal, *et al.*, 2013). Similarly, According to AgroNigeria report (2019) the prices of soybean have gone up within the last six months indicating that the demand gap estimated at N225 billion had still not been met adequately. This N225 billion demand gap is 75 percent of the total N300 billion soya bean market demands. Hitherto, Nigeria has been producing only 25 percent of its annual soya bean demand leaving a gap of about 75percent. A Central Bank of Nigeria (CBN) Report on Grains Demand and Commodity Prices of 2013 had put industrial demand for soya bean seed at a total of about 2,270,700 tons.

The increasing awareness on the importance and content of soybean in Nigeria has continued to increase its demand alongside its relatively low market price and numerous nutrient-rich products obtained along the soybean value chain. According to United States Department of Agriculture (2018), Nigeria domestic production of soybean is continuing to trend upwards but still does not meet the rapidly growing demand from poultry and vegetable oil producers. Nigeria currently produces soybean worth 85 million dollars in the international market and though most of the nation's soybean is consumed locally where they are used in the production of soymilk and specially formulated foods to help malnourished infants and children, the international market for the product is growing and sustainable (FORAMINIFERA Market Research, 2018). Over the years, domestic production of soybeans has been unable to satisfy local demand; in addition soybean crushers in the country are also operating below capacity and are unable to satisfy the growing demand for vegetable oil estimated at about 300,000 tons annually. Furthermore, direct human consumption of soybean is significant in Nigeria especially among rural income groups that cannot afford other alternative sources such as meat, egg and fish. Soybeans are now widely consumed and are readily used in the production of soymilk, soy cake, soy yoghurt, and fortification of local carbohydrates based Nigerian food staples (dawadawa). A local seasoning is also produced from soybean (Bakoji *et al.*, 2013).

Benue State has continued to stamp its ground as the largest producer of the crop in Nigeria. According to Odey (2011) soybeans thrive well on Benue soil and throughout the country. Since the 1940s the state is the largest producer and exporter of the crop. Ayoola (2001) and FORAMINIFERA Market Research (2018) also agree to this. Historically, Benue state once had a single government owned soybean processing industry; Taraku mills which had an installed capacity of about 72,000 tons whole soybean and 172,300 tons of animal feed; as at 1987 (Ameh, 2015). The factory processed soybeans in the state during which marketing, profitability, economic growth and development were enhanced. However the company is long moribund and unable to perform its task.

Unlike other agricultural crops such as groundnuts, mangoes, carrots, citrus etc that can be eaten raw, soybean must undergo processing via crushing, boiling, roasting, frying, or fermentation before its products can be obtained for further industrial use and household consumption. This thus limits the level of utilization of the crop at the household level as it requires improved technology for onward utilization. According to Omotayo *et al.* (2007), majority of commercial soybean crushing and processing industries are located in Lagos, Kano, Jos and Akure in decreasing order whereas the source of soybean raw materials utilized by these industries come from Benue, Kaduna, Plateau, Katsina, Jigawa, Kano and Bauchi in decreasing order.

The introduction of improved technology through establishment of two private-owned soybean processing industries in Benue State (which leads in the supply of soybean industrial raw material to processing industries) may lead

to an increase in market size and demand. It may also drive home initial exports. This new development may indicate alteration or changes in the hitherto known or established marketing chain, lead to reduced number of middlemen, increased farmers' profit, and encouraged marketing of soybeans. Related studies include those of Agada (2014) who analyzed constraints to increasing soybean production and productivity in Benue State and concluded that soybean farmers and traders obtain a low return on investment due to numerous middlemen they have to go through in the course of soybeans marketing. Also, Omotayo *et al.* (2007) and Ngbea (2006) analyzed the demand for soybean in Nigeria, and the marketing of soybean respectively. Furthermore, Ani *et al.* (2016) studied Pricing Efficiency in Soyabean Marketing: An Evaluation of Costs and Margins in Benue and Enugu States of Nigeria. No known study has viewed processing industries as a market. Therefore, the study shall consider the processing industries located within the state as additional markets and seek to ascertain how it has affected marketing in the study area using quantile regression analysis. Given the interest of farmers in the production of the crop, it is imperative to understand how the processing industries within the state relate with traders and vice versa while attempting to meet their soybean raw material industrial demand.

The study intends to

- identify the socio-economic characteristics of soybean traders in the study area
- estimate the marketing efficiency of soybean traders who sell mainly in the local markets and those who sell to the processing industries;
- assess the effects of soybean processing industries on soybean marketing efficiency of soybean traders in the study area;

METHODOLOGY

The Study Area

This study was carried out in Benue State, one of the 36 states in Nigeria; it derived its name from the Benue River. Located in the middle belt zone of Nigeria with 23 local government areas and Makurdi as its capital, the state falls between longitudes 6° 35'E and 10°E and between latitudes 6°30'N and 8°10'N. It has a population of about 4,219,244 people (NPC, 2006). The state shares boundaries with six (6) states namely; Nassarawa state to the north, Taraba state to the north east, in the south by Cross River state. It also bound by Enugu and Ebonyi states in the south west while Kogi state lies to the west. A short international boundary with the Republic of Cameroon is shared by Kwande local government area.

Benue is blessed with a lot of resources which include its rich soil and a climate that is suitable for growing nearly all kinds of crop and for breeding almost all kind of animals, thus 80% of the population is engaged in agriculture. Benue farmers are engaged in the production of almost all crops produced in Nigeria, some of the major crops grown in the state include cassava, yam, rice, maize, soybean, sesame, citrus, mangoes e.t.c. Benue has a long standing record as the highest producer and supplier of soybeans in Nigeria. Odey (2011) confirms by stating soybeans thrive well on Benue soil and throughout the country, since the 1940s the state is the largest producer and exporter of the crop. Omotayo *et al.*, (2007) further puts it soybean raw material utilized by these industries come from Benue, Kaduna, Plateau, Katsina, Jigawa, Kano and Bauchi in decreasing order. The state enjoys both the dry and wet seasons. The rains set in properly from April terminating in November thus giving room for the dry season to start immediately running through March. Temperatures are consistently high averaging 28°C - 32°C with intermittent increases up to 37°C especially in Makurdi the state capital.

It is administratively and agriculturally divided into three zones namely zones A, B and C.

The major ethnic groups within the state are Tiv, Idoma, and Igede (in decreasing order). However, others such as Etulo, Abakwa, Jukun, Hausa, Nyifon exist but on a small scale.

Sampling Procedure

The population for this study comprised all soybean traders in Benue State, Nigeria. Due to the large size of the population, the study employed multistage sampling procedure in selecting the sample for the study. The study area was divided into three (3) Agricultural zones namely zone A, zone B, and zone C. Zone A and B are made up of seven (7) Local Government Areas each while zone C has nine (9) local government areas. In the second stage, zone B was purposively selected because higher concentration of soybeans is recorded in this zone (Ministry of Agriculture and Natural Resources, 2014) and all the soybean processing industries operating in the state are located within the zone. In the third stage, the two (2) local government areas where the processing industries are located were purposively selected while one (1) local government area will be randomly selected within the zone. In the fourth stage, two (2) soybean local markets were randomly selected across the three local government areas. This gave a total of six (6) soybean local markets and two (2) soybean processing industrial markets. Lastly, 14% of the total population of soybean traders operating in the various local and industrial markets were selected, thus making a total sample size of two hundred and thirty nine (239) soybean traders.

Analytical Technique

Data collected from the study were subjected to both descriptive and inferential statistical analysis. Simple descriptive statistics such as frequency, mean, and percentage were used, marketing efficiency index was used as well. Also quantile regression analysis was used to assess the effect of soybean processing industries on marketing efficiency of soybean in Benue State.

The marketing efficiency index used to obtain the efficiency level of the various soybeans traders is given as;

$$\text{Marketing Efficiency} = \frac{\text{Value Added by Marketing}}{\text{Cost of Marketing}} \times 100 \quad (1)$$

The quantile regression model is stated as:-

$$y_i = X_i^T \beta_\tau + u_{\tau i} u_{\tau i} \sim H_{\tau i} \text{ subject to } H_{\tau i}(0) = \tau \quad (2)$$

where the index i denotes the individual agent (soybean market), y_i is the dependent variable, X_i is the vector of covariates for individual i , β_τ denotes the quantile-specified linear effects, and $0 < \tau < 1$ is given (i.e. fixed and known) quantile. For this reason, they are represented in (ii) as an unknown function of the quantile τ . The unknown error term $u_{\tau i}$ is characterized by an unspecified cumulative distribution function $H_{\tau i}$.

The covariates or independent variables examined include marital status, household size, gender, years of experience, major occupation, level of income generated, level of education, credit, membership, access to market information, distance to nearest soybean processing industry, decision on where to sell.

RESULTS AND DISCUSSIONS

Socio-Economic Characteristics of Respondents

The result of socio-economic characteristics of the respondents is presented in Table 2. Result reveals that respondents were within the age range of 20 to 60 years and above, with majority (32.6%) belonging to the age bracket of 40–49 years, while minority (8.8%) belonged to the age bracket of 60 years and above. The mean age of the respondents is 43 years. The result implies that soybean traders in the study area are young, active, full of energy, and within their productive age.

Result on sex of respondents reveal that, majority (81.2%) were males while 18.4% were females, indicating that more males were involved in soybean marketing in the study area. This could be because as far as the study area is concerned males are the ones responsible for taking care of the home and providing for the daily needs of the family, hence their involvement in soybean marketing business in order to raise the resources needed to meet their household needs.

Results further reveal 81.6% were married whereas 18.4% were single. The high percentage of married soybean traders indicates that they are involved in family responsibilities such as catering and fending for the family and providing the basic needs of the home, hence their involvement in financially rewarding activities such as soybean marketing.

Majority (89.5%) of the respondents indicated that soybean marketing is their major occupation, while 10.5% indicated they have other forms of businesses or jobs apart from soybean marketing. This implies that majority of the respondents were highly committed to soybean marketing and practiced it as the mainstay of their home economy, engaging in it on a daily basis and from where they derive their major annual income.

Results on household size reveal that majority (46.9%) of the respondents had household size within the range of 1-6 while minority (0.4%) indicated a household size of 19 people and above. The involvement of the stated range of household size indicates the presence of all categories of households in terms of size in the study area. Also it indicates the availability of family labour which may be employed in soybean marketing activities in the study area. The mean household size of soybean traders within the study area is 7 persons.

Majority (58.6%) of the respondents had 1–10 years of experience in soybean marketing business whereas a minority (2.1%) reported that they had spent about 31 years and above in the business of soybean marketing. The mean years of experience as indicated by respondents stand at 11 years. This result implies that respondents for the study had rich experience and knowledge about soybean marketing, as such are not novice in the business. Therefore, they could provide useful information about soybean marketing in the study area.

Result on annual income of respondents reveal that majority (88.7%) are generating less than N500,000 on an annual basis from soybean marketing while a minority (1.7%) indicated they usually generate between N1,000,000 - N1,499,999 annually, the mean annual income from soybean marketing is N290,954. This mean annual income is considered to be on the low side when compared with the mean household size of 7 upon which the income is expended. This would translate to a mean annual expenditure of N41,564.86 kobo per individual in the household per annum. Implying that about N113.88 kobo is generated and made available per individual in the household per day, thus falling below the US\$ 1.90 per day per person as the international poverty line or mark. It therefore implies soybean traders are living below international standard and will be willing to explore more marketing avenues to improve on their incomes and consumption expenditure.

Results on years spent in acquiring formal education indicates that majority (46.0%) of the respondents spent about 9–13 years in school which coincides with obtaining secondary level of education while a minority (2.9%) stayed in school for less than 4 years which is interpreted as no level of education attained by respondents since the minimum years required for obtaining the lowest educational level is 6 years, that is first school leaving certificate. The mean number of years spent by respondents in school is 13 years. The result also implies soybean marketers had spent a reasonable part of their lives acquiring formal education which has gone a long way in affecting their years of experience in soybean marketing. This finding implies that most of the respondents used for this study were literate, and equipped with the basic literate skills such as communication, writing and reading needed for day to day running of soybean marketing business.

Marketing Efficiency of Soybean Traders in the Study Area

Results reveal that soybean traders selling in the local markets purchase soybean from different sources at an average cost price of N6882.54 per 100kg bag, they proceed to further expend about N828.23 per 100kg bag as marketing cost with an aim of adding value to the soybean bought. After incurring marketing cost to add value via increasing place, time, form and utility, soybean is then sold at a mean price of N11,678.53. This implies the value added by marketing stands at N3967.76. These figures lead to a marketing efficiency index of about 479.06%, implying that 4.79 of the marketing costs incurred during soybean marketing in the local markets is accounted for by the additional value derived from the process of soybean marketing. Furthermore, the result implies that 479.06% of the amount injected as marketing cost is gained as value added by marketing at the end of the marketing process of soybean in the local markets within the study area. This indicates that traders selling soybean in the local markets are efficient by 479.08%. This level of efficiency could be traced to existence of a few barriers to entry into the local markets in the study area as indicated by the respondents that they must belong to at least one union before they can be allowed to sell in some of the local markets. This therefore, gives rise to increase in marketing cost, reduced number of soybean traders leading to price instability due to control. Furthermore, standard unit of measurement is more reliable in the processing industries such that pricing is standard and expressed per Kg for small supplies or tones for larger supplies, this makes way for standardization, reduced manipulations or short-changing suppliers which is however customary in the local markets where bags are used with different sizes that appear similar via facial appearance are flooded in the markets and traders or farmers being short-changed in the process. The result is similar to the findings of Bakoji *et al.* (2013) who reported marketing efficiencies of soybean marketers as 270.37%, 500%, and 529% for rural assemblers, retailers and wholesalers respectively in Toro Local Government Area of Bauchi state.

Results on marketing efficiency further reveals that soybean traders selling to the processing industries located in the study area purchase soybean at an average cost price of N5825.17 per 100kg bag. In a bid to acquire place, time, form and utility, soybean traders incur marketing cost of about N1110.33 per 100kg bag and eventually sell their soybean to the processing industries at a mean price of N15352.83 per 100kg bag, implying the value added by marketing is N8417.33 per 100kg bag. This translates to a marketing efficiency index of 758.09%. This result indicates a value added to marketing cost ratio of 7.58 or a marketing efficiency index of 758.09%. Implying that 7.58 of the marketing costs incurred during soybean marketing to the processing industries is accounted for by the additional value derived from the process of soybean marketing. Furthermore, result implies 758.09% of the amount injected as marketing cost is gained as value added by marketing at the end of the soybean marketing process to the processing industries within the study area. This indicates that traders selling soybean to the processing industries are efficient by 758.09%. This level of efficiency among traders

selling to the processing industries could be because of the proximity of these processing industries to the locations of soybean traders within the study area as indicated by the respondents that processing industries are located less than two kilometers to their homes, thus translating in less transportation cost, reduced cost of gathering market information. Also, lack of barriers to gain entry into the processing industries for marketing of soybean as indicated by (100%) of the respondents is key to this efficiency. Furthermore, the respondents indicated standardized measurement and stability of prices as their reasons for preferring the processing industries as their market source.

Effects of Soybean Processing Industries on Marketing Efficiency of Soybean Traders in Benue State

There are 12 covariates that were selected and subjected to quantile regression analysis. These covariates include age, credit, education, experience, gender, household size, annual income, marital status, distance of processing industries from trader's location, market information, market type, and membership of traders association. However, the variable of interest as far as this objective is concerned is market type which is measured as a dummy variable while the remaining eleven variables are control variables for the study.

Results on education reveal a positive and statistically significant effect at 10% level implying that as soybean marketers spend more years in attaining formal education, their marketing efficiency increases. That is, for every additional year spent in attaining formal education the marketing efficiency increases by 15.5, this increase in number of school years provides traders with more writing, communication and reading skills, information, increases their awareness and exposure to better ways of carrying out their activities. Furthermore, the tendency of accepting and creating innovative ways of trading aimed at increased efficiency is higher. Results on years of experience attained by soybean traders in the study area indicates that, at the upper quantile a positive and statistically significant effect at 5% level is observed on marketing efficiency of soybean traders. This implies that as soybean traders devote more years to the business, they tend to understand the environment better, get more conversant with market participants, market and marketing conditions leading to an increase in their efficiency. More specifically, for every additional year spent doing soybean marketing business leads to an increase in efficiency by 11.1.

Household size has a positive effect on the marketing efficiency of soybean traders as indicated by the coefficient estimates across all the quantiles but statistical significance is reported only at the upper quantile at 5% level. This means that an increase in household size will lead to an increase in marketing efficiency of soybean traders in the study area. To be more specific, as the household size increases by one additional person, the marketing efficiency increases by 15.02 at the upper quantile. This implies that more hands are available from the household to carry out labour-intensive activities associated with soybean marketing, thereby reducing cost on marketing activities such as bagging, re-bagging, cleaning, loading, and off-loading. Also, other cost items such as gathering of market information is more easily and broadly carried out at minimum cost. Since this is considered as family effort, its reward is always in kind rather than in cash

Results on annual income of soybean traders indicates a highly positive and statistically significant effect at 5% level on marketing efficiency of traders across all the quantiles though the magnitude of effect is relatively small. This implies that an increase in the annual income of soybean traders by one naira exerts a statistically significant effect on marketing efficiency of soybean traders in the study area. An increase in annual income signifies an increase in capital base and higher purchasing power of soybean traders which increases their ability to purchase more and operate their businesses at economies of scale where large purchases are made with higher discounts associated, this decreases their marketing cost

per bag of soybean and further empowers them with higher control of the market, increased confidence, and the stability to identify a more rewarding market for soybean being handled, thus resulting in increased price or making of better deals on sale. The reduction in cost and increase in selling price leads to increase in marketing efficiency.

Results on market information indicates a positive and statistically significant effect at the upper quantile at 1% level. This implies that access to market information leads to an increase in marketing efficiency of traders. This is so because information is power, having access to market information entails market power which implies the trader is being furnished with the prevailing market and marketing conditions on relevant marketing variables such as prevailing prices of soybean in the various alternative markets, transaction costs, conditions of entry and exit, quantity traded and controlled by individual trader, unit of measurement for each market identified, nature of transactions taking place in each of the markets, time and season of possible bumper sales. All these put together guide the trader in decision making as to which market, transaction type, unit of measure etc to engage in that will guarantee minimum cost and maximum benefit, hence a higher marketing efficiency.

Results on type of market patronized by a particular soybean marketer indicate a positive and statistically significant effect at 1% level in the lower and mid quantile. Indicating that, marketers selling to the processing industries tend to be more efficient than those selling in the local markets. This implies that as more farmers participate in the processing industrial market, their marketing efficiency tends to increase. More specifically, efficiency increases by 276.5 at the lower quantile, and 223.64 at the mid quantile following an increase in the number of participants in the processing industrial market. This is so because the processing industrial market is a more organized and reliable market with marketing variables such as industries' purchase price, unit of measurement, purchasing ability and willingness, certainty of purchase etc being clearly spelt out such that once traders set out with their products to the industries for sale, they are guaranteed of incurring marketing costs just once. This is however not the case with the local markets whereby sales may not be made at the end of the market day and traders will have to incur additional costs in transporting their products back home, sourcing for more market information, paying additional market levies or taxes in the next market, thus increasing their marketing cost which consequently reduces their marketing efficiency.

CONCLUSIONS AND RECOMMENDATIONS

This study was carried out to assess the effects of soybean processing industries on marketing of soybean in Benue State, Nigeria. From the finding, the study concludes that soybean marketing is dominated by males within the active age of 40-49 years with an average household size of 7 persons. Also soybean marketers in the study area are literate having spent an average of 13 years in acquiring formal education, marketers also adopted soybean marketing as their major occupation, thereby putting in as much as 11 years in soybean marketing from where they were able to generate an average annual income of N290,954 only.

The study further concludes that soybean marketers selling to the processing industrial markets are more efficient when compared to those selling in the local markets; also the processing industrial markets exert positive and significant effect on soybean marketing in the study area. There is therefore, need to encourage marketers of soybean in the study area to take advantage of the location of soybean processing industrial markets within their domain for higher economic gains through increased efficiencies. Furthermore, barriers of entry into local markets should be laid aside in order to attract more soybean marketers into the markets thereby increasing competition and reducing artificial price manipulation by few soybean traders existing in the local markets while the no restriction on who supplies to the processing industries should be

upheld.

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APPENDIX

Table 1: Socio-Economic Characteristics of Soybean Traders in Benue State

Variable	Frequency	Percentage (%)
Age		
20 – 29	30	12
30 – 39	68	28.5
40 – 49	78	32.6
50 – 59	42	17.6
60 and above	21	8.8
Mean	43	
Sex		
Male	194	81.2
Female	45	18.4

Table 1: Contd.,		
Marital Status		
Married	195	81.6
Single	44	18.4
Major Occupation		
Yes	214	89.5
No	25	10.5
Household Size		
1 - 6	112	46.9
7 – 12	105	43.9
13 – 18	21	8.8
19 and above	1	0.4
Mean	7	
Years of Experience		
1 - 6	140	58.6
11 – 20	74	31
21 – 30	20	8.4
31 and above	5	2.1
Mean	11	
Annual Income (N)		
Less than 500,000	212	88.7
500,000 – 999,999	18	7.5
1,000,000 – 1,499,999	4	1.7
1,500,000 and above	5	2.1
Mean	290,954	
Years Spent in School		
Less than 4 years	7	2.9
4 – 8 years	23	9.6
9 – 13 years	110	46
Above 13 years	99	41.4
Mean	13	

Table 2: Marketing Efficiency of Soybean Traders in the Study Area

Description	Local Markets	Processing Industries
Selling price (N)	11678.53	15352.83
Cost price (N)	6882.54	5825.17
Marketing cost (N)	828.23	1110.33
Value added by marketing(N)	3967.76	8417.33
Marketing efficiency index	479.06%	758.09%

Table 3: Quantile Regression Analysis on the Effects of Soybean Processing Industries on Marketing Efficiency of Soybean Traders in Benue State

Variable	0.25 Coefficient	t-stat	Quantile 0.50 Coefficient	t-stat	0.75 Coefficient	t-stat
Age	-0.280	-0.122	-1.791	-0.333	3.152	0.742
Credit	38.619	0.900	39.319	0.669	-27.907	-0.432
Education	-0.164	-0.0270	15.549*	1.949	-4.165	-0.584
Experience	-4.373	-1.029	-4.880	-0.768	11.126**	2.197
Gender	-75.580	-1.446	-73.225	-1.179	-21.033	-0.340
Household size	6.153	0.874	5.036	0.397	15.018**	2.003
Income	0.0001**	2.108	0.0001**	2.293	0.0002**	2.491
Marital status	-36.580	-0.695	72.010	0.833	16.347	0.150
Market Distance	-12.161	-0.420	-25.328	-0.583	-50.798	-1.310
Market information	-69.623	-0.641	153.031	1.149	350.100***	2.999

Table 3: Contd.,						
Market type	276.504***	4.872	223.638***	3.001	79.052	0.978
Membership	3.469	0.072	-3.390	-0.048	15.893	0.182
Constant	431.612***	2.843	623.372***	3.212	356.015**	2.000
LR-Stat	36.347		33.608		30.024	
Prob (LR-Stat)	0.0002		0.0008		0.003	

Note: Significant at *** (1%), ** (5%), * (10%)

